

[illegible]

КНАНЭЭЛЭРЭЙ К.У.

89297

9.4160 (1137, 1395)
9.4177

S/181/61/003/001/036/042
B102/B204

AUTHORS: Ryvkin, S. M., Paritskiy, L. G., Khansevarov, R. Yu., and Yaroshetskiy, I. D.

TITLE: Investigation of the kinetics of impurity photoconductivity for the purpose of determining the parameters of local levels

PERIODICAL: Fizika tverdogo tela, v. 3, no. 1, 1961, 252-266

TEXT: An investigation of impurity photoconductivity is not only of interest in principle, but is also of practical importance for studying the local electron states in the forbidden band and especially of its interaction with exciting radiation. Apart from an earlier paper by the authors, relaxation processes of impurity photoconductivity have hitherto not been investigated in detail; this was, however, the aim of the present voluminous paper. The authors set themselves the task of investigating theoretically the most important cases of photocurrent relaxation during excitation in the impurity region. The rules governing the kinetics of impurity photoconductivity have certain peculiar features as is shown

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here, due to which impurity photoconductivity relaxation differs essentially from that of intrinsic photoconductivity. An exact analysis of these rules shows that an experimental investigation of the kinetics of impurity photoconductivity may serve the purpose of determining various parameters of impurity centers as, e.g., the photon capture cross section, the trapping cross section for free carriers, as well as the energy position of the impurity level in the forbidden band, the concentration of centers and the degree of their completion. In part 1 of this paper, the most important rules of the kinetics of impurity photoconductivity in the excitation of carriers for one type of local centers are dealt with. This is done on the basis of an example of a semiconductor, in whose forbidden band there is a sort of local level with concentration M ; these levels are assumed to be in the upper half of the band, so that they are in heat exchange with the conduction band. This semiconductor is irradiated with monochromatic light of such a wavelength that only electrons pass from the local levels onto the conduction band, and that monopolar impurity photoconductivity occurs. The equation of motion (13) $d\Delta n/dt = (m_0 - \Delta n)qJ - \gamma \Delta n(N_{CM} + M - m_0 + n_0 + \Delta n)$

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is set up, where q is the capture cross section of an electron on the M -level for a photon; $m = m_0 - \Delta m$ is the electron concentration on the level M ; γ is the recombination coefficient; J is the light intensity; $n = n_0 + \Delta n$ is the electron concentration in the conduction band; n_0 is the dark concentration of the electrons; N_{0M} is the effective state density in the conduction band; and $\Delta m = \Delta n$. The solution in the case of excitation by square light pulses is, for the case of growth (switching on of light), given by

$$\Delta n_s = A \ln(\gamma A t + B) - C, \quad (1.6)$$

$$A = \sqrt{C^2 + m_0 \frac{qJ}{\gamma}}; \quad B = \frac{1}{2} \ln \left(1 + \frac{2C}{\Delta n_{ev}} \right);$$

$$C = \frac{1}{2} \left(N_{0M} + M - m_0 + n_0 + \frac{qJ}{\gamma} \right),$$

and for switching off

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$$\Delta n_{st} = \frac{\Delta n_{ev} \exp\left(-\frac{t}{\tau_{st}}\right)}{1 + \gamma \Delta n_{ev} \tau_{st} \left[1 - \exp\left(-\frac{t}{\tau_{st}}\right)\right]} \quad (1.7)$$

$$\tau_{st} = \frac{1}{\gamma (N_{st} + M - m_0 + n_0)}$$

and the steady concentration of non-equilibrium carriers is given by

$$\Delta n_{st} = \Delta n_{ev} = \frac{N_{st} + M - m_0 + n_0 + \frac{qJ}{\gamma}}{2} \times \left[\sqrt{1 + \frac{4m_0qJ}{\gamma (N_{st} + M - m_0 + n_0 + \frac{qJ}{\gamma})^2}} - 1 \right] \quad (1.8)$$

For low light intensities, $\Delta n_{st} = m_0 qJ / \gamma (N_{st} + M - m_0 + n_0)$, and for high intensities, $\Delta n_{st} \approx m_0$. The equation of motion is solved also under

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different conditions and for different special cases, and expressions are derived for the relaxation times. The dependence of relaxation times on light intensity is investigated, and explicit formulas are derived for q . In part 2 of this paper, the effect of a constant exposure in the impurity region upon the kinetics of impurity photoconductivity is investigated. (1.3) acquires the form

$$\frac{d\Delta n}{dt} = (m_0 - n_{j_0})q\Delta J - \gamma\Delta n \times \left(N_{st} + M - m_0 + n_0 + 2n_{j_0} + \Delta n + \frac{qJ_0}{\gamma} + \frac{q\Delta J}{\gamma} \right), \quad (2.1)$$

where J_0 is the intensity of constant exposure, ΔJ the amplitude of the square light pulse, and n_{j_0} the steady carrier concentration in the conduction band. The solutions (growth, drop, steady) have the form

$$\Delta n_H = \Delta n_{st} [1 - \exp(-t/\tau_H)]; \quad \Delta n_c = \Delta n_{st} \exp(-t/\tau_c); \text{ and}$$

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$$\Delta n_{st} = (m_0 - n_{J_0}) q \Delta J \tau_H. \text{ For } \gamma$$

$$\tau = \frac{q J_0}{M \frac{n_0 + n_{J_0}}{m_0 - n_{J_0}} - n_0 - n_{J_0} - N_{eN}}. \quad (2.13)$$

is obtained. In part 3 of this paper, the effect of constant exposure within the region of intrinsic absorption upon the relaxation of impurity photoconductivity is investigated. This is done on the basis of a simple example of "absolute adhesion levels" (levels for which the trapping cross sections for carriers of one kind vanish) for short-wave exposure of intensity I , which conveys electrons from the valence band into the conduction band; electron-hole recombination was carried out over the level S . Here, the most simple case of monopolar electronic intrinsic photoconductivity in linear recombination of free electrons is investigated. The kinetics of the electron transitions is described by the system

$$\frac{dn}{dt} = \beta k J - \gamma n (M - m) - \gamma m N_{eN} - q m J - \frac{n}{\tau}, \quad (3.1)$$

$$\frac{dm}{dt} = \gamma n (M - m) - \gamma m N_{eN} - q m J, \quad (3.2)$$

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where β is the quantum yield of the intrinsic effect, k the absorption coefficient in the intrinsic region, whose solution for switching in long-wave light is given by

$$\Delta n = \frac{q m_0 \Delta f \left(\frac{1}{\tau_N} + q \Delta f + r_1 \right) \left(\frac{1}{\tau_N} + q \Delta f + r_2 \right)}{\frac{1}{\tau_N} \left(\frac{1}{\tau_N} + q \Delta f \right) (r_1 - r_2)} [\exp(r_1 t) - \exp(r_2 t)], \quad (3.9)$$

rac

$$r_{1,2} = -\frac{1}{2} \left(\frac{1}{\tau} + \frac{1}{\tau_N} + \frac{1}{\tau_N} + q \Delta f \right) \pm \sqrt{\frac{1}{4} \left(\frac{1}{\tau} + \frac{1}{\tau_N} + \frac{1}{\tau_N} + q \Delta f \right)^2 - \left(\frac{1}{\tau_N} + \frac{q \Delta f}{\tau_N} \right)}$$

and for switching off long-wave light by

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$$\Delta n = \frac{q m_0 \Delta f \left(r_1 + \frac{1}{\tau_N} \right) \left(r_2 + \frac{1}{\tau_N} \right)}{(r_1 - r_2) \left(\frac{1}{\tau_N} + q \Delta f \right)} [\exp(r_1 t) - \exp(r_2 t)], \quad (3.10)$$

$$r_{1,2} = -\frac{1}{2} \left(\frac{1}{\tau} + \frac{1}{\tau_N} + \frac{1}{\tau_N} \right) \pm \sqrt{\frac{1}{4} \left(\frac{1}{\tau} + \frac{1}{\tau_N} + \frac{1}{\tau_N} \right)^2 - \frac{1}{\tau \tau_N}}.$$

The course of the relaxation curves is discussed in detail. The authors thank Yu. A. Zibuts for help in calculations. There are 11 figures and 8 references: 5 Soviet-bloc and 3 non-Soviet-bloc.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut AN SSSR imeni akad. A. F. Ioffe (Leningrad Institute of Physics and Technology of the AS USSR imeni Academician A. F. Ioffe)

SUBMITTED: July 16, 1960

Card 8/8

RYVKIN, S.M.; KHANSEVAROV, R.Yu.; YAROSHETSKIY, I.D.

Impurity photoconductivity in germanium irradiated by gamma-quanta. Fiz.tver.tela 3 no.10:3211-3219 0 '61. (MIRA 14:10)

1. Fiziko-tekhnicheskii institut imeni Ioffe AN SSSR, Leningrad.
(Semiconductors, Effect of radiation on)

L 19568-63 EWP(q)/EWT(m)/EWP(B)/BDS AFFTC/ASD JD
ACCESSION NR: AP3007517 S/0181/63/005/009/2704/2706

AUTHOR: Khansevarov, R. Yu.

TITLE: Investigation of impurity conductivity in germanium irradiated
with fast electrons 27

SOURCE: Fizika tverdogo tela, v. 5, no. 9, 1963, 2704-2706

TOPIC TAGS: irradiation, radiation effect, radiation damage, impurity
photoconductivity, fast electron irradiation, irradiated germanium
radiation defect, n type germanium

ABSTRACT: An experimental study was conducted of impurity photo-
conductivity in n-type Ge with an initial concentration $n_0 = 2 \times 10^{15} \text{ cm}^{-3}$
bombarded with 2-Mev electrons. The degree of irradiation was such
that the Fermi level was located sufficiently high above the $E_c - 0.2 \text{ eV}$
level so that at the temperature at which measurements were made
(80K), the $E_c - 0.2 \text{ eV}$ level was practically filled with electrons.
It was determined that when the Fermi level lies between the E_c and
 $E_c - 0.2 \text{ eV}$ levels, the impurity photoconductivity of Ge bombarded
with 2-Mev electrons is of the same type as that of Ge irradiated

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L 19568-63

ACCESSION NR: AP3007517

with 2-Mev γ -rays. The kinetics of impurity photoconductivity is in qualitative agreement with previously developed theory (PTT, v. 3, 252, 1961). The results of the paper cited were used to determine the cross section for capture of a photon (q) by an electron and the coefficient of recombination (γ_n) of electrons for the $E_c - 0.2$ eV level. It was found that for 0.3-eV photons $q = 4-8 \times 10^{-16} \text{ cm}^3$ and $\gamma_n = 0.025-1 \times 10^{-12} \text{ cm}^3 \text{ sec}^{-1}$. A decrease in photoconductivity was observed in all of the specimens. "The author thanks S. M. Ry*vkin for a discussion of results and Y. D. Yaroshetskiy for providing the specimens of irradiated Ge." Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe, AN SSSR, Leningrad (Physicotechnical Institute, AN SSSR)

SUBMITTED: 20Mar63

DATE ACQ: 14Oct63

ENCL: 00

SUB CODE: PH

NO REF SOV: 005

OTHER: 002

Card 2/2

TOPIC TAGS: germanium defect, impurity
defect, gamma irradiation, defect level

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721730009-2

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721730009-2"

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721730009-2

L 24168-65

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721730009-2"

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721730009-2

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721730009-2"

csc
Card 2/2

L 32636-6 EWT(m)/EWF(t)/ETI LJP(c) JB/GG
ACC NR: AF0018527 SOURCE CODE: UR/0181/66/003/006/1690/1697

AUTHOR: Mashovets, T. V.; Khansevarov, R. Yu.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR, Leningrad (Fiziko-
tekhnicheskiiy institute AN SSSR)

TITLE: Low-temperature gamma irradiation and annealing of indium antimonide

SOURCE: Fizika tverdogo tela, v. 8, no. 6, 1966, 1690-1697

TOPIC TAGS: indium compound, indium antimonide, irradiation, annealing, resistivity, Hall constant, photoconductivity, radiation damage, crystal defect

ABSTRACT: In view of the scarcity of published data on the effect of gamma irradiation on InSb, the authors irradiated n-type InSb at 77K (dose rate 2.4×10^{10} photons/cm²·sec) with initial electron density 2.9×10^{13} - 1.6×10^{14} cm⁻³ and p-type InSb with initial hole density 5.3×10^{13} - 3.3×10^{14} cm⁻³. The resistivity, Hall constant, and the spectral distribution of the photoconductivity were measured before and during irradiation, and during the subsequent annealing. The test results are used to determine the rate of defect formation and the extremal positions of the Fermi level as functions of the irradiation dose. The results indicate that the defects produced by irradiation act as ionized scattering centers, and that the rate of defect formation is a rather complicated function of the irradiation dose. Some hypotheses are advanced concerning the energy level scheme of the irradiated indium antimonide. It is concluded that

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L 32636-60

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721730009-2"

there are several simultaneously acting mechanisms affecting the course of annealing of the radiation defects, and that the rate of this annealing depends on the initial carrier density in the semiconductor. Investigation of the isochronous annealing of defects in the interval 77 - 300K yielded results that agree with published data, thus indicating that these processes are governed by the main defects always produced after irradiation. Two levels, $E_C - 0.083$ and $E_V + 0.048$ eV, are credited to radiation defects and are classified as donor and acceptor levels, respectively. The authors thank S. M. Ryvkin for interest, V. V. Galavanov for supplying many samples, and L. V. Mikina for help with the measurements. Orig. art. has: 7 figures and 4 tables. [02]

SUB CODE: 20/ SUBM DATE: 16Oct65/ ORIG REF: 007 OTH REF: 003/
ATD PRESS: 50274

Card

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50

ACC NR: AP7005205

systems of solid solutions, the initial components of which have different zonal structures, it was concluded that the zonal structure of solid solutions of the given system changes with alloy composition of $2\text{CdTe} \cdot 3\text{CuInTe}_2$ and that the zonal structures of CdTe and CuInTe_2 are different. Orig. art. has: 2 figures.
[Authors' abstract] [AM]

SUB CODE: 11, 20/SUBM DATE: none/ORIG REF: 005/OTH REF: 002/

Card 2/2

ACC NR: AP7013140 SOURCE CODE: UR/0449/67/001/001/0141/0143

AUTHOR: Goryunova, N. A.; Tychina, I. I.; Khansevarov, R. Yu.

ORG: Physico-technical Institute im. A. F. Ioffe, AN SSSR, Leningrad
(Fiziko-tehnicheskii institut AN SSSR); Kiev State Pedagogical Institute im.
A. M. Gor'kiy (Kiyevskiy gosudarstvennyy pedagogicheskii institut)

TITLE: Some photoelectric properties of monocrystals of n-CdGeP sub 2 and
p-ZnGeP sub 2

SOURCE: Fizika i tekhnika poluprovodnikov, v. 1, no. 1, 1967, 141-143

TOPIC TAGS: vapor pressure, photoelectric property, germanium single crystal,
single crystal growing, IR photoconductor

SUB CODE: 20

ABSTRACT: The vapor pressures of all three components in the compounds tested
in this article differ sharply. This makes the technology of production of
monocrystals extremely complex, which explains the complete absence of informa-
tion on the physical properties of these compounds in the literature. Using
dual temperature synthesis, the authors developed a technique for synthesizing
these compounds in consideration of the pressure kinetics of the vapors in

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0933 0842

ACC NR: APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721730009-2

an ampule. The CdGeP₂ monocrystals were produced by directed crystallization
from a stoichiometric melt at constant temperature gradient. This same method
was used to produce crystals alloyed with tin, germanium, gallium, arsenic,
bismuth and indium. The ZnGeP₂ monocrystals were produced by crystallization
from a melt-solution. The first measurements of photoconductivity of these
monocrystals showed that they have maximum photosensitivity in the visible and
near infrared areas, which will possibly determine the area of their practical
application. Orig. art. has: 1 figure. [JPRS]

VILLAKO, K.; EHANGE, L. [Hange, L.]; KHANSON, Kh. [Hanson, H.]; LEYEPER, M. [Lõper, M.]

Blood changes in diphylllebothriasis. Med. paraz. i paraz. bol. 27 no.4:494
Jl-Ag '58. (MIRA 12:2)

1. Iz kafedry biokhimii (zav. kafedroy - prof. E. Martinson) i iz kafedry
propedevтики vnutrennikh bolezney (zav. kafedroy - dots. E. Raudam) Tartu-
skogo gosudarstvennogo universiteta.

(TAPEWORM INFECTIONS, blood in,
diphylllebothriasis (Rus))

KYRGE, K. [Körge, K.], dotsent; HANSON, Kh. [Hanson, H.], kand.med.nauk

Effect of soporifics on adrenal cortex function. Probl.
endok. i gorm. 5 no.3:39-42 My-Je '59. (MIRA 12:9)

1. Iz kafedry fakul'tetskoy terapii Tartuskogo gosudarstvennogo
universiteta (zav. - dotsent K.Kyrge).

(THIOPENTAL, eff.

on 17-ketosteroids & hydroxycorticosteroids in
urine (Rus))

(17-KETOSTEROIDS, in urine
eff.of thiopental (Rus))

(ADRENAL CORTEX HORMONES, in urine
17-hydroxycorticosteroids, eff. of thiopental
(Rus))

RIYV, Ya.Ya., kand.med.nauk; KHANSON, Kh.M.

Use of dihydrochlorothiazide (hypothiazido). Vrach. delo no.1:
51-54 Ja '62. (MIRA 13:2)

1. Kafedra fakul'tetskoy terapii i patologicheskoy fiziologii (zav. -
dotsent K.Kh.Kyrge) Tartuskogo universiteta i Tartuskaya gorodskaya
klinicheskaya bol'nitsa.
(THIADIAZINE) (EDEMA)

WIT: EAT/m ... RGT/AS MD ...
APR 1971

... of exogenous cytochrome ...
... mitochondria isolated from ...

... mitochondrial ...

... oxidative phosphorylation, cytochrome ...
... effect, irradiation

ABSTRACT: Experiments were performed for the purpose of comparing
the effect of exogenous cytochrome C on oxidative phosphorylation in

... whole-body irradiation of rats by doses of 800 r, mitochondria of the
... lose their ability to perform oxidative phosphorylation ...

L 8405-65

ACCESSION NR: AP4043979

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy rentgenoradiolo-
gicheskiy Ministerstva zdoravookhraneniya SSSR, Moscow (Central
Research Institute of Roentgenology and Radiology of the

KHANSON, R.P.

Effect of whole-body X-ray irradiation on the processes of conjugate oxidative phosphorylation and some mechanisms of their regulation in liver mitochondria of rats. Radiobiologiya 5 no.1:44-48 '65.

(MIRA 18:3)

1 Tsentral'nyy nauchno-issledovatel'skiy rentgeno-radiologicheskiy institut Ministerstva zdravookhraneniya SSSR, Leningrad.

Khansuvarov, A.A.

USSR/Engineering - Induction heating

Card 1/1 Pub. 128 - 17/34

Authors : Donskoy, A. V., and Khansuvarov, A. A.

Title : The induction heating with radio-frequency currents of blanks for the forging and stamping industry

Periodical : Vest. mash.³⁴ 12, 60-62, Dec 1954

Abstract : The editorial gives some information concerning the experiment conducted by M. I. Kalinin's Polytechnical Institute in Leningrad, in the field of induction heating of billets and blanks with radio frequencies. A short description of tube generators, induction heating and the change in range of heating temperatures is given. Five USSR references (1949-1953). Diagram; graphs.

Institution :

Submitted :

L 06197-67 FSS-2/EMP(1)/EMP(v)/EMP(t)/ETI/EMP(k) DS/JD/HM
 ACC NR: AP6032489 SOURCE CODE: UR/0413/66/000/017/0030/0030

INVENTOR: Alekseyev, F. A.; Balashov, V. A.; Gershonok, M. I.; Grachev, I. M.;
Yegorov, B. A.; Kobyl'nitskaya, M. I.; Kozlov, D. A.; Lifshits, A. I.; Mondrus, D. B.;
Parshin, N. A.; Rashevskiy, A. L.; Rivkin, A. E.; Tal'gren, A. A.; Khansuvarov, A. A.

ORG: none

TITLE: Device for high frequency soldering of lead-acid storage batteries. Class 21,
 No. 185368

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 17, 1966, 30

TOPIC TAGS: metal soldering, storage battery

ABSTRACT: An Author Certificate has been issued for a device for high-frequency soldering of lead-acid storage batteries. The device contains an h-f generator with an external tank circuit, a multiloop inductor with open ferrite magnetic circuits, a conveyor with a lifting table, a control desk, and an assembling-soldering former equipped with a magnetic screen fastened on a non-magnetic base. Orig. art. has: 1 figure.

Card 1/2 UDC: 621.352.2:621. 791.357:621.3. 029.5

L 06197-67
ACC NR: APG032489

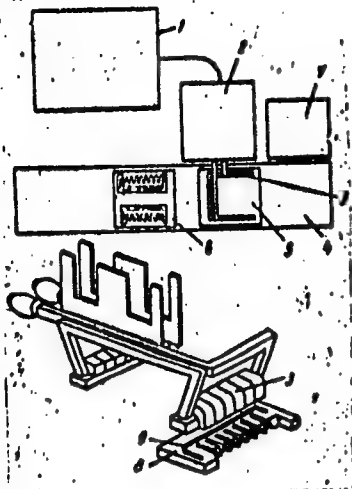


Fig. 1. 1 - H-f generator; 2 - external tank circuit;
3 - inductor; 4 - conveyor; 5 - lifting table;
6 - control desk; 7 - former; 8 - screen; 9 - base.

SUB CODE: 10,13 / SUBM DATE: 24 Mar 65

Card 2/2 a7a

Khansuvarov, N. A.

110-4-14/25

AUTHORS: Donskoy, A.V., Doctor of Technical Sciences, Professor,
Borok, A.M., Ivenskiy, G.V., and Khansuvarov, A.A., Engineers.

TITLE: A High-frequency Electro-thermal Installation of a New
Series (Vysokochastotnaya elektrotermicheskaya ustanovka
novoy serii)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, No. 4,
pp. 42 - 47 (USSR).

ABSTRACT: High-frequency electro-thermal installations with valve
generators for induction-heating are widely used. A mass-
produced equipment has lacked anode voltage stabilisation and
needs careful screening to reduce radio interference. A new
series of equipment has been developed that operates at a
frequency of 70 kc/s, so that both the fundamental and the
second harmonic are outside the standard frequency range for
radio interference. This new equipment, type $\Pi 13-67$, employs
a stabilised anode-controller rectifier. The main technical
data are given with a full-circuit diagram in Fig.1 and the
main components of the circuit are described: the rated output
is 60 kW. The principles of the grid control system are des-
cribed. A change of the grid voltage varies the firing angle of
the valve. The main advantage of the circuit is its simplicity
and although the accuracy of stabilisation is less than that
Card 1/2 of existing circuits, it is nevertheless adequate. The equipment

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A High-frequency Electro-thermal Installation of a New Series

includes protection against short-circuit, overload and under-
voltage. A general view of the equipment is given in Fig.2.
It is housed in a number of separate cubicles, whose contents
are described.

A wide range of tests was made on the equipment; its character-
istics are given in Fig.3. These curves show that the genera-
tor can easily be adjusted to give the best operating conditions
on the most varied loads. The oscillatory power ranges from
40 - 60 kW and the efficiency of the generator valve is 72 - 78%.
The power-factor depends on the ignition angles of the thyatron
and ranges from 0.72 - 0.93. During the tests careful measure-
ments were made of radio-interference with the results plotted
in Fig.4, which shows that interference is worst at light-loads
but is still within the specified limits even when the cubicle
doors are open.

There are 4 figures, and 3 Russian references.

ASSOCIATION: The Leningrad Works for High-frequency Installations
(Leningradskiy zavod vysokochastotnykh ustanovok)

SUBMITTED: October 18, 1957

AVAILABLE: Library of Congress

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SOV/110-59-1-21/28

The Frequency Range for High-Frequency Heating Installations

it would be advisable to allocate frequency bands to such equipment and to permit some relaxation of interference levels in these bands. It is recommended that surface-hardening equipment should use the range 65 - 74 kc/s. The third harmonic of this frequency range is 195 - 220 kc/s, which is already common in industry and should continue to be used. The frequency range of $6.5 \pm 10\%$ Mc/s is recommended for valve-generator installations for melting semiconductors. For other applications frequencies ranging from $13 \pm 5\%$ to $39 \pm 2.5\%$ Mc/s are suggested. The frequencies recommended are all harmonics of the basic frequency 6.5 Mc/s. The use of high-frequency equipment is extending. Unless frequency bands are allocated to such equipment and higher interference levels are permitted in these bands, the situation will soon become impossible.

Card 2/2

BLAGOVESHCHENSKIY, Gleb Vladimirovich; KHANSUVAROV, A.A., red.

[Use of ferrite magnetic circuits in induction heating]
"Primenenie ferritovykh magnitoprovodov v praktike induktsionnogo nagreva. Leningrad, 1964. 12 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen periodovym opytom. Seriya: Elektrotekhnologicheskie protsessy i ustanovki, no.1) (MIRA 17:9)

GRAMENITSKIY, V.N.; KHANSUVAROV, K.I.

Standard two-piston vacuum manometer. Trudy inst. Kom. stand.
mer i izm. prib. no.66:14-26 '62. (MIRA 16:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut Komiteta
standartov, mer i ismeritel'nykh priborov pri Sovets
Ministrov SSSR.

(Vacuum gauges)

SOV/115-59-2-13/38

AUTHOR: Khansuvarov, K.I.

TITLE: Model Spring Pressure Piston Barometer (Obraztsovyy gruzopruzhinnyy porshnevoy barometr)

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 2, pp 24-28 (USSR)

ABSTRACT: There is a great need for a first class barometer in the meteorological service of the Soviet Union. Currently the most accurate barometers are designed on two principles: 1) Mercury system; 2) Various types of spring systems. The author, in stressing this, cites the following types: Mendeleyev Plant VNIIM mercury barometer: National Standards Buro (USA) automatic mercury barometer: Two Asconia Plant (Western Germany) types - spring microbarometer and spring microbarograph. The ideal barometer must not only be highly accurate, but also easily portable. Mercury barometers are unweildy and require considerable adjustment after being transported. Spring barometers are more compact, but

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APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721730009-2"

Model Spring Pressure Piston Barometer

SOV/115-59-2-13/38

but give unstable readings, which makes them suitable only for approximate measurements. Consequently, a model mercury piston barometer was developed by the author and V.N.Gramenitskiy in 1956. However, the presence of mercury in the barometer and the complicated measuring process entailed further research. The results were two versions of spring pressure piston barometer, one most suitable as a barograph, the other as a barometer. These are described together with their dimensions. The author then states that in view of the tendency to develop accurate automatically recording barometers, a self-regulating piston barograph has been designed. Tests carried out so far indicate that this barograph will be as accurate as the above-mentioned spring pressure piston barometer. There are 7 formulae, 2 diagrams, 1 photograph and 3 Soviet references.

Card 2/2

KHANSUVAROV, K.I.

Standard first-grade nonmercurial piston barometer.

Nov. izm.prib.i metod.ikh pov. no.1:101-104 :60.

(MIRA 24:12)

(Barometer)

GRAMENITSKIY, V.N.; FROLOV, Yu.A.; KHANSUVAROV, K.I.

Grade 0,02 standard manometer with measurement limits from
0 to 2,5 kgf/cm². Izm.tekh. no.13:19-20 N '61.

(MIRA 14:11)

(Manometer)

5/113/62/000/011/003/008
E194/E155

AUTHOR: Khansuvarov, K.I.

TITLE: Hydrodynamic forces in the piston systems of
instruments with seal-less pistons

PERIODICAL: Izmeritel'naya tekhnika, no.11, 1962, 23-26

TEXT: The theory of rotating piston instruments is often based on the hydrodynamic theory of lubrication of a plain bearing, despite the difference that the loading is mainly axial. In practical piston instruments, inaccuracies of fit and centering give rise to some radial forces, so it is necessary to consider the case in which both axial load and torque are applied to the cylinder. Taking the Sommerfeld formula as a basis, with the usual simplifying assumptions (no end leakage, no distortion, constant lubricant viscosity), formulae are derived for forces acting when the piston and cylinder are not coaxial. It is first shown that the relative eccentricities of the piston lines in the planes of the top and bottom ends of the cylinder depend only on the nature of the external load. Two extreme cases are considered.
1) The piston is loaded with a force F and there is no internal
Card 1/3

Hydrodynamic forces in the piston... S/115/62/000/011/003/008
E194/E155

torque; in this case the loading factors are given by the expressions

$$\psi = \frac{a}{(2 + a^2) \sqrt{1 - a^2}}, \quad \varphi = 0$$

where a is the eccentricity. The solution reduces to the Sommerfeld formula.

2) The piston is loaded with pure torque and the loading factors then are:

$$\psi = 0, \quad \varphi = \frac{1}{2a_1^2} \left[\arcsin a_1 - \sqrt{\frac{2}{3}} \arctan \left(\sqrt{\frac{3}{2}} \frac{a_1}{\sqrt{1 - a_1^2}} \right) \right]$$

where a_1 and a_2 are the relative eccentricities of the piston at the top and bottom of the piston, respectively.

An experimental rig, constructed to check the formulae, consisted of an outer loaded cylinder fitted closely over an intermediate rotating driven cylinder, which fits over a stationary piston.

The dimensions and clearances used were typical of practical

Card 2/3

Hydrodynamic forces in the piston... S/115/62/000/011/003/008
E194/E155

instruments. The system was filled with lubricant. Measurements were made of torque on the external cylinder when loaded horizontally. Its displacement, observed through a microscope, was found to describe a steady double-loop motion around the central position. The test results agree qualitatively with those obtained from theoretical formulae. Test results obtained under different conditions (speed, piston conditions, liquid viscosity) agree reasonably well if the load characteristics are constant. The work facilitates preliminary design calculations (not allowing for strain) for piston instruments. Such calculations are particularly useful in developing new piston dynamometers and balances for heavy loadings (thousands of tons) for which experience with existing instruments is insufficient; when measuring masses of 1 - 2 tons with barometric pressure instruments, the permissible error is of the order of 0.001%. There are 5 figures.

Card 3/3

KHANSUVAROV, K.I.

Hydrodynamic forces in piston systems of instruments having
a nonsealed piston. Izv. tekhn. no. 11:23-26 N '62. (MIRA 15:11)
(Pistons)

L 10722-61

EWI(1)/BDS/ES(w)-2

AEDC/AFMTC/ASD/SSD Pab-14

ACCESSION NR: AT3002050

8/2587/22/000/066/0014/0026

AUTHOR: Gramenitskiy, V. N.; Khansuvarov, K. I.

TITLE: Calibrating double-piston pressure-vacuum gauge

SOURCE: USSR. Komitet standartov, mer, i izmeritel'nykh priborov. Trudy* institutov Komiteta, no. 66 (126), 1962. Issledovaniya v oblasti izmereniy davleniya, raskhoda i vakuuma, 14-26

TOPIC TAGS: MVP-2.5 vacuum pressure gauge, double pistons, pressure, measuring error, standard spring pressure gauges, standard spring vacuum meters

ABSTRACT: A description and schematic diagram of the MVP-2.5 vacuum pressure gauge is given. The double-piston devices are used to measure excess, absolute, and atmospheric pressure, as well as vacuum and pressure differentials. Measurement limits were found to be from 0 to 2.5 kg/cm sup 2 for excess pressure and from 0 to 7.60 mm of mercury for vacuum. Measuring error limit was found to be less than 0.05%, if the measured size is more than 0.1 kg/cm sup 2, and less than 0.5 mm of water for values less than 0.1 kg/cm sup 2. These instruments can be used to verify standard spring pressure gauges and standard spring vacuum meters. Orig. art. has: 32 equations and 5 figures.

Card 1/2

acc. VNIIX

I. 10711-63 BDS
ACCESSION NR: AT3002058

8/2589/62/000/066/0075/0089

AUTHOR: Khansuvarov, K. I.

TITLE: Investigation of calibration piston barometer⁰

49
48

SOURCE: USSR. Komitet standartov, mer, i izmeritel'nykh priborov. Trudy* institutov Komiteta, no. 66 (126), 1962. Issledovaniya v oblasti izmereniy davleniya raskhoda i vakuuma, 75-89

TOPIC TAGS: piston barometer, microbarometer Gb5, equilibrated piston, dynamics of measuring process

ABSTRACT: The mean quadratic error of the piston barometer, depending on measurement conditions, is found to be 0.005 to 0.02 mm of mercury column, generally exceeding the sensitivity of the best spring barometers, (e.g. microbarometer Gb5 of Askania Werke, German Federal Republic, with an elastic element, made in the form of a hollow helicoid spring, provides an accurate reading (of the order of 0.01 mm of mercury column). A mercury piston barometer with equilibrated piston was developed in 1955-56 at VNIIC by the author and V. N. Gramenitskiy. The piston barometer (with inverted piston) has two basic units: an incompressible piston pair and a device which assures even equilibration of part of the weight of the piston. The dynamics of the measuring process are discussed in terms of

Card 1/2

L 10714-63
ACCESSION NR: AT3002058

discrepancy between the readings of any instrument and the measured variables (inertia of the instrument). Orig. art. has: 6 figures, 5 tables, and 6 formulas.

ASSOCIATION: VNIIC

SUBMITTED: 05Apr60

DATE ACQ: 20Apr63

ENCL: 00

SUB CODE: 00

NO REF SOV: 003

OTHER: 002

ban/CA
Card 2/2

KHANSUVAROV, K.I.

Investigation of the standard first-class weight and piston
barometer. Trudy inst. Kom. stand mer i izm. prib. no.66:
75-89 '62. (MIRA 16:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut Komiteta
standartov, mer i ismeritel'nykh priborov pri Sovete Ministrov
SSSR.

(Barometer—Testing)

UL'YANOV, G. (g.Gorodets, Gor'kovskoy oblasti); LIPNER, S. (Kherson);
BARANOVA, M.; KHANSUVAROVA, F.; BARANOVA, M.; KRUGLOVA, O.
(Murmansk); KUPISOV, P. (Moskva); TISHCHENKO, A., Geroy
Sotsialisticheskogo Truda

Kindergartens and nurseries should be placed under the control
of women's committees. Rabotnitsa 40 no.6:14-15 Je '62.
(MIRA 16:3)

1. Predsedatel' zhenskogo soveta stroitel'stva Krasnoyarskoy
gidroelekticheskoy stantsii (for Khansuvarova). 2. Predsedatel'
zhenskogo soveta tralovogo flota, Murmansk (for Kruglova).
 3. Predsedatel' pravleniya detskogo sada zhilishchno-
ekspluatatsionnoy kontory No.10 Kiyevskogo rayona Moskvyy (for
Kuptsov). 4. Predsedatel' zhenskogo soveta Novo-Kramatorskogo
mashinostroitel'nogo zavoda (for Tishchenko).
- (Kindergartens) (Nurseries)

KHANTADZE, A.G.

Conditions for dynamically possible motions in magnetohydrodynamics.
Soob. AN Gruz. SSR 30 no.4:409-416 Ap '63.

(MIRA 17:9)

1. Institut geofiziki AN GruzSSR, Tbilisi. Predstavleno akademikom
V.I. Mamasakhlisovym.

KHANTADZE, A.G.

Rotation of a conducting fluid with shifting center. Soob.
AN Gruz. SSR 31 no. 3:543-549 S '63. (MIRA 17:7)

1. Institut geofiziki AN GruzSSR, Tbilisi. Predstavleno
chlenom-korrespondentom AN GruzSSR M.M.Mirianashvili.

KHANTADZE, A.G.

Design of a magnetohydrodynamic model of a cyclone. Part 1. Geomag 1
aer. 4 no.6:1020-1025 N-D '64. (MIRA 18:1)

1. Institut geofiziki AN Gruzinskoy SSR.

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721730009-2"

KHANTADZE, A.G.

A class of solutions of equations in magnetohydrodynamics. Geomag.
1 ser. 5 no.1:167-170 Ja-F '65. (MIRA 18:4)

1. Institut geofiziki AN GruzSSR.

KHANTADZE, A.G.

Motion of a medium of finite conductivity in the presence of mass forces and a plane magnetic field. Geomag. i aer. 5 no.2:342-345 Mr-Apr '65.

N.E.Kochin's problem in magnetohydrodynamics. Ibid.:345-346 (MIRA 18:7)

KHANTADZE, A.G.

Constructing a magnetohydrodynamic model of a cyclone, Part 2.
Geomag. 1 ser. 5 no.3:413-416 My-Je '65.

Two-dimensional motion of a conducting medium in the presence of
mass forces and a plane magnetic field. Ibid.:417-422

(MIRA 18:5)

1. Institut geofiziki AN Gruzinskoy SSR.

Figure 1. Graphical representation of the base line with Mn 5-7.

Good machinability, few defects, and well solidified structure were obtained by alloying the base line with Mn 5-7. Mn 4 and 6 alloyed with the Mg-Ni alloy.

I. D. Galt

ACCESSION NR: AT4030796

8/0000/63/000/000/0110/0118

AUTHOR: Tavadze, F.N.; Bayramashvili, I.A.; Khantadze, B.V.; Grdzelishvili, V.A.

TITLE: The influence of boron on the surface tension of nickel

SOURCE: AN UkrSSR. Institut metallokeramiki i spetsial'nykh splavov. Poverkhnostnyye yavleniya v rasplavakh i protsessakh poroshkovoy metallurgii (surface phenomena in liquid metals and processes in powder metallurgy). Kiev, Izd-vo AN UkrSSR, 1963, 110-118

TOPIC TAGS: surface tension, boron, nickel, beryllium oxide, aluminum oxide, nickel based alloy, boron containing alloy, hydrogen, helium

ABSTRACT: The authors investigation was conducted by the lying-drop method on an instrument designed and constructed especially for this purpose. The fundamental diagram of the instrument is presented in a figure. The drop was magnified four times. The surface tension of the metal was determined on a flat support of aluminum oxide and beryllium oxide. Special experiments were performed to study the effect of the materials of the heater and the supports, as well as the medium (hydrogen, helium), on the surface tension of nickel and its alloys with boron. The

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ACCESSION NR: AT4030796

results of the investigation were presented in micro-photographs, tables, and figures. The values of the surface tension of nickel in a hydrogen and helium atmosphere were practically identical. Boron, an inactive element in relation to nickel, did not effect the value of its surface tension and the grain size. The calculation of the generalized moment and the static generalized moment of nickel and boron atoms confirmed the inactivity of boron in nickel-boron alloy systems. Orig. art. has: 10 figures and 2 tables.

ASSOCIATION: Institut metallurgii AN GruzSSR, Tiflis
AN (Georgian SSR)

(Institute of Metallurgy

SUBMITTED: 23Nov63

DATE ACQ: 16Apr64

ENCL: 00

SUB CODE: ML

NO REF SOV: 006

OTHER: 003

Card 2/2

KHANTADZE, D.V.

Calculating the volume of a lying drop. Fiz.met.i metalloved.
15 no.3:470-472 Mr '63. (MIRA 164)

1. Institut metallurgii AN Gruzinskoy SSR.
(Surface tension) (Liquid metals)

L 10629-63

EWP(q)/EWT(m)/RDS--AFWTC/ASD--JD

ACCESSION NR: AFJ000750

S/0020/63/150/003/0544/0546

57
56AUTHOR: Tavadze, E. N. (Academician, An GruzSSR); Bayramashvili, I. A.;
Khantadze, D. V.; Tsagareyshvili, G. V.TITLE: Density and surface tension of molten boron $\sqrt{\wedge}$

SOURCE: AN SSSR. Doklady*, v. 150, no. 3, 1963, 544-546

TOPIC TAGS: liquid-boron density, liquid-boron surface tension, localized melting, electron-beam melting, drop-volume image, contact angle

ABSTRACT: The density and surface tension of molten boron (B) have been measured for the first time by the pendant-drop and sessile-drop methods. A procedure for zone melting without a crucible, reported previously by Tsagareyshvili (Tsagareyshvili, G. V., Peredovoy nauchno-tekhnicheskiy i proizvodstvennyy opyt, JOSINTI, tema 37, v. 7 (1962).), was adapted with modifications for the use of an electron beam of a cathode-ray tube for localized melting. Experiments with Ni drops have established that surface tension is not affected by electron beam heat. The volume of the drop was both determined from its photoimage in a calibrated optical system for precise measurements of expansion coefficients and calculated from the function $V_0/V = f(1/H)$ for various contact

Card 1/p₂

L 10629-63

ACCESSION NR: AP3000750

angles θ , with l the radius of the equatorial cross section of the drop; H , the distance between the equatorial cross section and the top; V , the volume of the drop, determined from the Bashforth and Adams tables (Bashforth, F., Adams, J. An Attempt to Test the Theories of Capillary Action by Comparing the Theoretical and Measured Form of Fluid Drop, London, 1883) and calculated on the basis of parameters l , H , θ ; and V_0 , the volume of a rotating ellipsoid with semimajor axis l , semiminor axis H , and height. Correction to actual drop volume was accomplished by means of the above function. The accuracy of this method, unlike that of the Bashforth tables, is not influenced by errors in the measurement of the contact angle. The degree of heating was determined by means of an OPPIR-17 pyrometer to be approximately 500 above the melting point. Surface tension was determined by melting crystalline B rods, 4, 6, and 9 mm in diameter with an electron beam removed after formation of a drop. Results obtained were similar for rods with different diameters. Surface tension was determined to be 1030 dyn/cm by the sessile drop method and on the basis of previously reported data 1060 to 1070 dyn/cm by the pendant-weight-drop method depending on the data used and 1050 dyn/cm by the weight-drop method. At temperatures 500 above the melting point of B the density was 2.08 ± 0.05 gr/cm³, and the average surface tension was 1060 ± 50 dyn/cm. Orig. art. has: 3 figures.

Card 2 1/2 Inst. of Metallurgy

L 62959-65 EWP(e)/EPA(s)-2/EWT(m)/EWP(i)/EWP(n)-2/EWG(m)/EWP(t)/EWP(z)/EWP(b) IJP(c)

AUTHOR: Tavadze, F. N. (Academician Ad GruzSSR); Bayramashvili, I. A.; Khantadze, D. V.

TITLE: Surface tension and structure of molten borides of iron, cobalt and nickel

SOURCE: N SSSR. Doklady, v. 162, no. 1, 1965, 67-69

TOPIC TAGS: surface tension, boride, iron compound, cobalt compound, nickel compound, molten metal

ABSTRACT: The surface tension was measured for various concentrations of boron, by the large drop method with an estimated accuracy of $\pm 1.5\%$. The boron used contained $<0.002\%$ metallic impurities and $<0.02\%$ oxygen, and the metals used were premelted under vacuum. Measurements were made in a helium atmosphere. The specimen drop was held in a beryllium oxide cup, heated to $\sim 1900^\circ\text{C}$ and photographed while cooling slowly to the liquidus temperature. The density was measured at 1500°C for the

Card 1/2

L 62959-65

A 101110000 APS013443

at additive law. Curves for surface tension as a function of concentration showed

ACC NR: AR6035405

SOURCE CODE: UR/0137/66/000/009/A007/A007

AUTHOR: Tavadze, F. N.; Bayramashvili, I. A.; Khantadze, D. V.

TITLE: Surface tension and density of borides of iron, cobalt, and nickel

SOURCE: Ref. zh. Metallurgiya, Abs. 9A39

REF SOURCE: Sb. Poverkhnostn. yavleniya v rasplavakh i voznikayushchikh iz nikh tverd. fazakh. Nal'chik, 1965, 376-382

TOPIC TAGS: boride, metal compound, surface tension, zone melting, metal surface

ABSTRACT: The authors investigated the surface tension σ and the density γ of Fe-B, Co-B, and Ni-B alloys. These were determined with apparatus for crucible-less zone melting by an electron beam, using the lying and hanging drop method in the 1500 - 1900° interval. The substrates were made of an alloy of boron nitride with graphite (BNC) and high-purity graphite. The value of σ of B was determined in a single experiment by two methods (by weighing the detached drop and by determining the shape of the hanging drop), while σ and γ of the alloys Me-B were determined by the "large drop" method in a helium atmosphere. The drops were produced in cups made of BeO. The following data were obtained: $\gamma_{Fe} = 8.325 - 0.862 \times 10^{-3} T^{\circ}C$, $\gamma_{Co} = 9.230 - 1.020 \times 10^{-3} T^{\circ}C$, and $\gamma_{Ni} = 9.338 - 1.036 \times 10^{-3} T^{\circ}C$. σ of B near the melting point is 1060 erg/cm². The investigated systems belong to that class of systems in which the components with low melting temperatures have a higher value of σ . The experimental isotherms of σ lie in all cases above the isotherms calculated from the equation for

Card 1/2

UDC: [669.781'1 + 669.781'24/25]:[532.14 + 532.61]

ACC NR: AR6035405

CIA-RDP86-00513R000721730009-2"

ideal solutions. This shows that the Me-B bonds are more favored from the energy point of view than the adsorption of B on the surface of the metal. That a strong inter-particle interaction exists in the Me-B systems is also indicated by the appreciable negative deviation of the experimental values of the molar volumes from their additive values. The investigated alloys have apparently a quasimolecular structure with quasimolecular groupings close in composition to FeB, CoB, and Ni₃B₂. From among the investigated melts, the lowest stability to quasimolecular structure is possessed by melts of the Fe-B system. 2 illustrations. Bibliography, 24 titles. M. Krashenin-nikov [Translation of abstract]

SUB CODE: 11

Card 2/2

KHANTADZE, G.A.

Calculating the rating of truck and tractor engines for normal
atmospheric conditions. Soob. AN Gruz.SSR 21 no.3:289-296 S '58.
(MIRA 12:4)

1. Gruzinskiy sel'skokhozyaystvennyy institut. Predstavleno aka-
demikom V.V. Makhqldiani.
(Gas and oil engines)

KHANTADZE, V.; BURSON, Ye.

Gross rates as a powerful lever for reducing the time spent
by vessels in ports. Mor. flot 25 no.8:8-10 Ag '65.

(MIRA 18:8)

1. Nachal'nik Il'ichevskogo porta (for Khantadze). 2. Glavnyy
dispatcher Il'ichevskogo porta (for Burson).

KHANTADZE, Z.A.; SHKHVATSABAYA, G.Ya., red.

[Traction force of plows and its most advantageous direction]
Sila tiagi plugov i ee naivygodneishee napravlenie. Tbilisi,
Izd-vo Gruzinskogo sel'khoz. in-ta, 1960. 206 p.

(MIRA 15:7)

(Plows)

REK...PAYEV, I.

2277. Khantayev, P. i Milanov, K. Kocheparka respublikhi. (Businesserskiy uvol'nyy
basseyn. Ocherk). Ulan-Ude, buryat-mongol. LN. 123., 1974. 203. 205... 1.500 kuz.
40K.- (55-11) P

622.333(57.23)

SO: Knizhnaya Letopsis', Vol. 1, 1955

TUYSK, Aleksandr Gansovich; BAZAROV, B.M., spets. red.; KHANTAYEV,
P.I., spets. red.; SUMAKHIN, A.N., red. izd-vz

[Development of the mining industry in the Buryat A.S.S.R.]
Razvitie gornoi promyshlennosti Buriatskoi ASSR. Ulan-Ude,
Buriatskii kompleksnyi nauchno-issledovatel'skii in-t, 1961.
86 p. (MIRA 16:6)

(Buryat A.S.S.R.—Mineral industries)

ACCESSION NR: AR4039236

8/0269/64/000/004/0020/0020

SOURCE: Ref. zh. Astronomiya, Abs. 4.51.155

AUTHOR: Khanter, V. R.

TITLE: Investigation of hard ultraviolet radiation with a Bendix tubular photomultiplier

CITED SOURCE: Sb. Korotkovolnovoye izlucheniye nebesn. tel. M., Izd-vo in. lit., 1963, 68-77

TOPIC TAGS: tubular photomultiplier, ultraviolet radiation, hard ultraviolet radiation, astronomy

TRANSLATION: A report has been published on testing of a tubular photomultiplier with continuous acceleration of electrons as a detector of hard ultraviolet radiation. The investigated photomultiplier is a glass tube 10 mm long and with an internal diameter of 0.2 mm; resistivity is 10^8 ohms. The principal parameters of the photomultiplier are an

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APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000721730009-2"

ACCESSION NR: AR4039236

amplification factor of 10^4 - 10^5 and a quantum yield similar to that of pure tungsten; the dark current is $\sim 10^{-12}$ - 10^{-13} a. Change of the amplification factor with time was studied. I. Zh.

DATE ACQ: 12May64

SUB CODE: AS

ENCL: 00

Card 2/2

DMITRIYEVICH, Boris Konstantinovich; KHANTEL', Vera Ivanovna;
BUTKO, Viktor Il'ich; KOSYAROV, M., red.;
VANDERK, L., r

[Improvement of the technology of lime production in rotary
kilns] Sovershenstvovanie tekhnologii proizvodstva izvesti
vo vrashchayushchikhsia pechakh. Minsk, Izd-vo "Belarus',"
1964. 34 p. (MIRA 18:6)

KHANTIMER, I.S.

Edatability of plants in the grazing lands of the extreme north
of the Komi A.S.S.R. Bot. zhur. 49 no.5:731-735 My '64.

(MIRA 17:8)

1. Komi filial AN SSSR, gorod Syktyvkar.

KHANTIMER, I.S.

Water vegetation of the Una River, Izv. Komi fil. Geog. ob-va
SSSR no.9:55-60 '64. (MIRA 18:5)

KOTELINA, Nina Stepanovna; KHANTIMER, Ismail Syddykovich; SHENNIKOV,
A.P., prof., otv.red.; VIKHREV, S.D., red.izd-va; BOCHEVER,
V.T., tekhn.red.

[Meadows of the Komi A.S.S.R.] Inga Komi ASSR. Moskva, Izd-vo
Akad.nauk SSSR, 1959. 265 p. (MIRA 12:12)

1. Chlen-korrespondent AN SSSR (for Shennikov).
(Komi A.S.S.R.—Pastures and meadows)

KHANTONOV, P. E.

USSR/Geology

Card 1/1

Author : Khantonov, P. E.

Title : About regional breaks in the boundaries of the Embenskiy salinebass region.

Periodical : Dokl. AN SSSR, 95, 6, 1301 - 1304, 21 Apr 54

Abstract : The article deals with the geological structure in the Emba river region. From the map given in the article one can see that there are 3 breaks in the region and their positions. Proof of the existence of these breaks is given in the article. A diagram of the geological profile of Emba river Saline region and a stratigraphic table are given in the article.

Institution : N. G. Chernyshevskiy State Univ. at Saratov

Submitted : 11 Feb 1954

KHANTOV, K.

"System of Models in Construction." p. 26 (RATSIONALIZATSIYA Vol. 4,
No. 10, Oct. 1954; Sofiya, Bulgaria.)

So: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 1,
April 1955, Uncl..

KHANTOV, St.

The producing of monsters. Nauka i tekhnolozhiya 14, no.11:
23-24 '62.

ZHIVKOV, E., dotsent; GOLEMINOVA, R.; DENEV, Vl.; KHANTOVA, K.

Treatment of endogenous uveitis. Khirurgia 16 no.1:103-113
'63.

1. Iz Katedrata po ochni bolesti pri VMI [Vissh meditsinski
institut] - Sofia.
(UVEITIS) (SYPHILIS) (TUBERCULOSIS OCULAR)
(TOXOPLASMOSIS OCULAR) (MYCOSES)

L 36491-66 EWP(j)/T RM/DS

ACC NR: AP6027084

SOURCE CODE: UR/0079/65/035/010/1866/1871

AUTHOR: Zhako, Ya.; Al'mashi, L.; Dzhurdzhu, M.; Khants, A.

ORG: University im. Babes-Bolyai; Institute of Chemistry, ARPR, Cluj

TITLE: Study of the physicochemical properties of O,O-dialkyl esters of arylsulfonamidophosphoric and -thiophosphoric acids. Part 1: Acidity constants of certain O,O-diethyl esters of arylsulfonamidothiophosphoric acids in ethanol-water mixtures, and applicability of the Hammett equation of these compounds

SOURCE: Zhurnal obshchey khimii, v. 35, no. 10, 1965, 1866-1871

TOPIC TAGS: phosphoric acid, ester, ethanol, solution acidity, dissociation, EMF, electrode potential, buffer solution, proton

ABSTRACT: Potentiometric measurements at 20°C were used to determine the dissociation constants of O,O-diethyl esters of arylsulfonamidothiophosphoric acids in ethanol-water mixtures containing 90, 70, and 50 vol% ethanol. A transference cell was employed, and the emf of the following concentration cell was measured in various solvents:

$\text{Pt} | \text{H}_2, \text{HCl} (0.01 \text{ M}) | \text{HX} (c_1), \text{NaX} (c_2), \text{H}_2 | \text{Pt}$

The measurements were actually made indirectly: the potential of the hydrogen electrode was measured first in HCl, then in the HX-NaX

Card 1/2

UDC: 547.26-118:541.132.3/4

L 36491-66

ACC APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721730009-2

buffer mixture, in the same solvent, but relative to a saturated calomel electrode. The emf of the above cell was obtained as the difference of these two potentials. To calculate the activity of the hydrogen ions from the emf of the cell, use was made of the Nernst formula. The Izmaylov equation was found to apply to the variation in strength of the arylsulfonamidothiophosphoric acids as a function of solvent composition, and the proportionality constant of this equation was calculated for all the derivatives of the acids. The pK of the acids and the proportionality constant were found to be linear functions of the constant σ of Hammett's equation, i. e., this equation is applicable to the compounds studied. Values of the reaction constants for the acidic dissociation indicate that the substituents exert a greater influence on the dissociation of the proton in the case of the compounds under consideration than in the case of benzoic acids. Orig. art. has: 1 figure, 2 tables and 4 formulas. [JPRS: 36,328]

SUB CODE: 07 / SUBM DATE: 27Mar64 / ORIG REF: 002 / OTH REF: 007

Card 2/2 MLP

KHANTSEVICH, A.V., inzh., red.; DANILOV, L.N., red.izd-va; TIKHANOV, A.Ya.,
tekhn.red.

[Album of designs for spare parts of screw-cutting lathes] Al'bom
chertezhei zapasnykh detalei tokarno-vintoreznogo stanka modeli
1616. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1957.
36 p. (MIRA 11:2)

1. Moscow. Eksperimental'nyy nauchno-issledovatel'skiy institut
metalloreshushchikh stankov.
(Screw-cutting machines)

ZAKHARCHENKO, V., inzh.; KHANTSIN, A. [Khantsyn, A.], inzh.

Ventilation of livestock buildings. Sil'. bud. 12 no.5:7-9
My '62. (MIRA 16:4)

(Farm buildings—Heating and ventilation)

SHEKHTER, M.M.; KHANTISIS, M.Ya.

Combined inspection conveyor. Kons. i ov. prom. 17 no.8:
10-12 Ag '62. (MIRA 17:1)

1. Odeskiiy gosudarstvennyy institut proyektirovaniya
promyshlennosti.

ACC NR: AP7004796 (A) SOURCE CODE: UR/0413/67/000/001/0131/0131

INVENTOR: Khantsin, Ya. G.; Medovar, B. Ya.

ORG: None

TITLE: A method for producing non-alcoholic beverages. Class 53, No. 190197

SOURCE: Izobreteniya, promyshlennyye obroztsy, tovarnyye znaki, no. 1, 1967, 131

TOPIC TAGS: food technology, beverage

ABSTRACT: This Author's Certificate introduces: 1. A method for producing non-alcoholic beverages by preparation of a sugar syrup with subsequent filtration, cooling, blending with specified components such as food acids and extracts, purification of the mixture and bottling. In order to improve the stability of the beverages and give them tonic properties, an alcohol infusion of wolfberry diluted with mulberry juice is added to the sugar syrup after filtration. 2. A modification of this method in which the alcohol infusion of wolfberry is diluted by mulberry juice in a ratio of 1:33.

SUB CODE: 06/ SUBM DATE: 30Aug65

Card 1/1

UDC: 663.8.054.3

L 62709-65 EPF(c)/EPA(s)-2/EWA(h)/EIP(j)/EIP(k)/EIT(d)/EIT(l)/EIT(n)/EIP(h)/I/
EIP(l)/EIA(d)/EIP(w)/EIP(v) Po-h/Pf-h/Pr-h/Ps-h/Pt-7/Peb EV/EH/JD
ACCESSION NR: AP5019030 UR/0286/65/000/012/0065/0066
666.189 22.002.5 104
100

AUTHOR: Gavrilov, I. K.; Filippov, D. A.; Strukov, V. M.; Blatov, V. S.; Shalimov,
A. S.; Vul, N. I.; Ivarov, A. M.; Belyakov, V. V.; Frolov, R. A.; Khantsis, R. Z.;
Andriyevskaya, G. D.; Zelenskiy, B. B.; Kuperman, A. M.; Dobrovolskiy, A. K.;
Dzhereliyevskiy, K. B.

TITLE: Winding machine. Class 32, No. 172009, 5

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 65-66

TOPIC TAGS: glass reinforced plastic, plastic filament, fiber glass, filament
winding, winding machine, filament wound article

ABSTRACT: This Author Certificate introduces a machine for fabrication of glass-
reinforced plastic articles by filament winding. The machine includes a drive with
a reductor and a mandrel mounted on a rotating shaft. To fabricate spherical shapes
the machine is equipped with profiled guides transmitting to the mandrel a tilting
motion around the vertical axis simultaneously with a rotation around the axis (see
Fig. 1 of the Enclosure). Orig. art. has: 1 figure. [ND]

Card 1/3

L 62709-65

ACCESSION NR: AP5019030

ASSOCIATION: Organizatsiya gosudarstvennogo komiteta po aviatsionnoy tekhnike SSSR
(Organization of the State Committee on Aviation Engineering, SSSR)

SUBMITTED: 19 May 64

ENCL: 01

SUB CODE: MT, 12

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4064

Card 2/3

L 5290-66 EWT(m)/EPP(c)/EWP(j) RPL WJ/RM

ACC NR: AP5022052

SOURCE CODE: UR/0286/65/000/014/0129/0129

AUTHORS: Guseva, I. A., Mal'kov, N. S., Makarov, Yu. A., Kulov, E. A., Izmaylova, I. S., Shvareva, G. N., Khantsis, R. Z., Gladyshev, A. I., Perepelkin, V. P., Nikitina, D. M., Cherkunin, K. I., Rodzinskiy, V. V.

ORG: none

TITLE: Method for obtaining copolymers Class 39, No. 144021

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 129

TOPIC TAGS: copolymer, pressure casting

ABSTRACT: This Author Certificate presents a method for obtaining copolymers on the basis of methyl methacrylate and esters of acrylic acid by a suspension method. To obtain colorless copolymers suitable for fabricating products by casting under pressure, higher alcohols, e.g., octyl, as a plasticizer, esters of phthalic acid, e.g., dicyclohexyl, as a stabilizer, and derivatives of aminocoumarone, e.g., phenyl ester of (naphtho-1st, 2nd, 5th)-triazoline (2nd)-stilbene-2-sulfonic acid, as a clarifier are added to the mixture.

SUB CODE: M, OC/ SUBM DATE: 15 May 61/ ORIG REF: 000/ OTH REF: 000

Card 1/1

090,0501

L 11260-66 (A) EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(j)/T/EWP(k)/EWA(h)/ETC(m) EM/WM/RM

ACC NR: AP5028475 SOURCE CODE: UR/0286/65/000/020/0056/0057

INVENTOR: Gavrilov, I. K.; Filippov, D. A.; Strukov, V. M.; Blatov, V. S.; Shalimov, A. S.; Vul. N. I.; Ivanov, I. A.; Belyakov, V. V.; Frolov, R. A.; Khantsin, R. Z.; Andriyevskaya, G. G.; Zelenskiy, E. S.; Kuperman, A. M.; Dobrovolskiy, A. K.; Dzhereliyevskiy, A. B.

ORG: none

TITLE: Method of fabricating fiberglass shells. Class 32, No. 175624

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1065, 56-57

TOPIC TAGS: shell, cylindrical shell, fiberglass shell, shell fabrication, fiberglass winding, solid fuel rocket, rocket case

ABSTRACT: This Author Certificate introduces a method of fabricating shells from fiberglass wound on a pattern which is then melted out or dissolved. To increase the strength of the shell, the winding is combined with the stretching of fiber by means of a fiber guide which rotates around the pattern. [DV]

SUB CODE: 11,19 SUBM DATE: 02Jul64/ ATD PRESS: 4474

HW
Card 1/1

IGNAT'YEVA, G.V.; SARAYEVA, N.T.; KHROMETSKAYA, T.M.; LID NEVA, A.G.;
MASTYUKOVA, Yu.N.; MESTEROVA, T.P.; ALAFUZOVA, S.B.; YERSHOVA, A.S.;
BARANOVA, T.V.; BEKLEMESHEVA, Ye.D.; SHIPOVA, Ye.P.; SUKHANOVA, R.V.;
KHLIYABICH, G.N.; KHANTSIS, S.S.

Clinical and epidemiological effectiveness of a reduced dose of
 γ -globulin (1.5 ml) in seroprophylaxis of measles. Zhur.mikrobiol.,
epid. i immun. 42 no.12:57-61 D '65. (MIRA 19:1)

1. Moskovskiy institut epidemiologii i mikrobiologii; Institut viru-
sologii imeni Ivanovskogo AMN SSSR; Moskovskaya sanitarno-epidemiolo-
gicheskaya stantsiya; Rybinskaya sanitarno-epidemiologicheskaya
stantsiya; Vladimirskaia sanitarno-epidemiologicheskaya stantsiya i
Ob'yedinennaya detskaya poliklinika, Makhachkala.

KHANTULEV, A. A.

✓ The genesis and properties of solonetz soils of the forest
steppes of Nerchinskaya Dauriya. A. A. Khantulev.
Uchenye Zapiski, Leningrad. Gosudarst. Univ. Ser. A. A.
Zhurnal No. 174, Ser. Biol. Nauk No. 36, 103-34(1935).--
AG The genesis of solonetz soils of the forest steppes of Ner-
chinskaya Dauriya which is located in Eastern Siberia were
described in detail. Analyses for the humus content, total
N, and carbonates were made on meadow solonchak soils
and on salinized chernozems. The pH values, the ab-
sorbed Na, the exchange capacity, and the total and avail-
able P in solonetz soils and in meadow solonchak soils were
detd. From the residual chernozems, the exchangeable
bases and the pH values of both aq. and saline soils, were
measured. From the aq. exts. of the saline soils of the
steppes analyses were made for Na, Mg, Ca, SO₄, HCO₃,
and CO₃ ions and for humus.
M. D. Derderian

KHANTULEV, A.A.

Materials on soil characteristics in agricultural districts of the
Maritime Territory. Uch.zap. Len. un.no.221:32-54 '56.

(MIRA 10:3)

(Maritime Territory--Soils)

KHANTULEV, A.A.
GIGARENA, B.T.; *KHANTULEV, A.A.*

Correlation of landforms and pedological features in the
carbonate soils of the Ishora elevation. **Vest. LGU 16 no.21:**
113-120 '61. (1961, 14:11)
(Ishora Valley--Soil formation)

SCHASTNAYA, L.S.; KHANTULEV, A.A.

Podzols of the Bryansk section of Polesye. Vest. LGU
17 no.3:145-156 '62. (MIRA 15:2)
(Bryansk Province--Podzol)

KHANTULEV, A.A.

Conference on the problems of agricultural soil research and the mapping of collective and state farm soils in the Northwest of the RSFSR. Vest. LGU 17 no.15:150-151 '62. (MIRA 15:8)
(Russia, Northwestern--Soil research--Congresses)

GAGARINA, E.I.; SCHASTNAYA, L.S.; KHANTULEV, A.A.

→ Characteristics of taiga soils in the lower Northern Dvina Valley.

Vest. LGU 18 no.9:132-142 '63.

(MIRA 16:6)

(Northern Dvina Valley--Soil formation)

TRUTNEV, A.G.; KHANTULEV, A.A.

Intercollege Scientific Reports Conference on the topic "Universities
for Agriculture." Pochvovedenie no.10:98-100 0 '63. (MIRA 16:12)

GAGARINA, E.I.; SCHASTNAYA, L.S.; KHANTULEV, A.A.

Soil formation in the northern taiga of Archangel Province.

Nauch. dokl. vys. shkoly; biol. nauki no.3:197-201 '64

(MIRA 17:8)

1. Rekomendovana kafedroy geografii pochv Leningradskogo
gosudarstvennogo universiteta imeni A.A. Zhdanova.

KHANTSIN, Ya.G.

Utilization of sand for an increase in juice yield. Kons.i ov.
prom. 16 no.2:18 F '61. (MIRA 14:4)

1. Kiyevskoye oblastnoye upravleniye promyshlennosti prodovol'stvennykh tovarov.

(Fruit juices)

KHANTULEV, A. A.

Soils - Siberia

Genesis of forest-steppe soils of eastern Siberia. Uch.zap.Len.un., No. 140, 1951.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

KHANUKAYEV, A.N.

PHASE I BOOK EXPLOITATION

998

Akademiya nauk SSSR. Institut gornogo dela.

Voprosy teorii razrusheniya gornykh porod deystviyem vzryva (Theoretical Problems in Crushing Rock by Blasting) Moscow, Izd-vo AN SSSR, 1958. 161 p. 2,500 copies printed.

Resp. Ed.: Mel'nikov, N.V., Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: Klimovitskiy, Ya.A.

PURPOSE: This collection of articles is of interest to mining specialists.

COVERAGE: The present collection of 9 articles by various authors presents the results of scientific research in the field of rock crushing in mining by means of blasting. The studies conducted are of both theoretical and practical nature. The articles examine the distribution of explosive energy and the propagation of spherical explosive waves in soil. Theoretical principles in determining the size of charges for certain types of mining operations are discussed and analysed. The articles are accompanied by diagrams, photographs, tables and bibliographic references.

Card 1/3

998

Theoretical Problems (Cont.)

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to Blasting

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Vlasov, O.Ye. Principles of the Theory of the Disintegration of Rocks by
Blasting

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Lukhanov, A.F. Disintegrating Rocks by Blasting

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Kovashenkov, A.V. [Deceased] Study of Rock Disintegration by Single Cylindrical
Blasts

100

Terent'yev, V.I. A Study of the Relationship Between Ore Lumpiness and Factors
in Explosion Operations

126

Belayenko, F.A. Study of Stress Fields and the Process of Fissuring in Cylindrical
Blasting Charges in Hard Rocks

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998
Theoretical Problems (Cont.)

Pokrovskiy, G.I. Prerequisites of the Theory of Rock Crushing by Blasting 140

Rakhmatulin, Kh.A. and Stepanova, L.I. Propagation of the Explosive Shock Wave in Soils 149

Resolution of the Scientific Conference of Dec. 20-21, 1955 of the Inter-departmental Commission for Explosives at the Mining Institute of the Academy of Sciences, USSR 160

AVAILABLE: Library of Congress

MM/sfm
1-12-59

Card 3/3

BARANOV, Yevgeniy Gerasimovich, kand.tekhn.nauk; DANCHEV, Pavel Stepanovich, kand.tekhn.nauk; IVANOV, Konstantin Ivanovich, kand.tekhn.nauk; MAL'CHONOK, Vladimir Olimpiyevich, kand.tekhn.nauk; PASHKOV, Aleksey Dmitriyevich, kand.tekhn.nauk; KHANUKAYEV, Aleksandr Nisanovich, kand.tekhn.nauk; DOKUCHAYEV, M.M., retsenzent; PAVLOV, K.V., otv. red.; KOROLEVA, T.I., red.izd-va; SABITOV, A., tekhn.red.

[Investigation of boring and blasting processes; using motion-picture photography] Issledovanie protsessov bureniia i varyvaniia; s primeneniem kinos"emki. Moskva, Ugletekhizdat, 1959. 186 p. (MIRA 12:8)

(Boring) (Blasting) (Motion-pictures in industry)

KHANUKAYEV, A.N.

Investigating the mechanism of the fragmentation of rods under the
action of an impact wave using the high speed cinematography method.
Usp.nauch.fot. 6:180-182 '59. (MIRA 13:6)
(Motion pictures in mining)

Card 7/22

. KHANUKAYEV, A.N., dots.

Approximate calculation of the expenditure of energy of a wave of stresses in breaking shifting, and deforming hard rocks. Izv.vys. uc.b.zav.; gor.shur. no.2:90-94 '60 (MIRA 14:5)

1. Leningradskiy gornyy institut.
(Blasting)